7. (Amended) The method of claim 1, wherein the step of detecting at least one variation in intensity comprises:

providing at least one detector downstream of the first position; and

detecting a change in beam intensity downstream of the first position with the detector.

8. (Amended) The method of claim 1, wherein the step of detecting at least one variation in intensity comprises:

moving a detector in a direction transverse to the beam direction; and

detecting a change in beam intensity that corresponds to the adjusted intensity profile.

9. (Amended) The method of claim 1, wherein the step of determining a direction or parallelism comprises:

identifying a first position where an adjusted intensity profile that caused a detected minimum intensity was created;

identifying a second position where the minimum intensity is detected; and

determining a direction or parallelism of the beam based on the first and second positions relative to the reference direction.

10. (Amended) The method of claim 1, further comprising:

forming a second adjusted intensity profile from at least another portion of the beam at a second position;

detecting a second variation in intensity of at least another portion of the beam downstream of the second position; and

determining a direction or parallelism of the beam based on the positions of the detected intensity profiles relative to the positions of the first and second adjusted intensity profiles.

11. (Amended) A method for determining a direction or parallelism of an ion beam, comprising:

forming an ion beam;

blocking a portion of the beam with a beam modifier;

identifying a position where a shadow is formed separate from and downstream of the beam modifier; and

determining a direction or parallelism of the ion beam in response to detecting a distance between the position of the shadow and the position of the beam modifier.

14. (Twice Amended) An apparatus for determining a direction or parallelism of a beam, comprising:

means for forming a beam;

means for forming an adjusted intensity profile from at least a portion of the beam at a first position;

means for detecting an intensity profile of at least a portion of the beam downstream of the first position at a second position that is variable in distance from the first position in accordance with changes in direction or parallelism of the beam relative to a reference direction; and

means for determining a direction or parallelism of the beam relative to a reference direction in response to detecting a distance between a position of the detected intensity profile and a position where the adjusted intensity profile is formed.

15. (Twice Amended) An apparatus for determining a direction or parallelism of a charged particle beam, comprising:

at least one detector that detects an intensity profile of at least a portion of the charged particle beam;

a beam modifier that alters an intensity profile of at least a portion of the charged particle beam upstream of the at least one detector; and

a controller that determines a direction or parallelism of the charged particle beam relative to a reference direction in response to a detected distance in at least one dimension between a position where the intensity profile is detected by the at least one detector and a position where the beam modifier created the detected intensity profile.

Please add new claim 25 as follows:

25. (New) A method for determining a direction or parallelism of a beam, comprising: